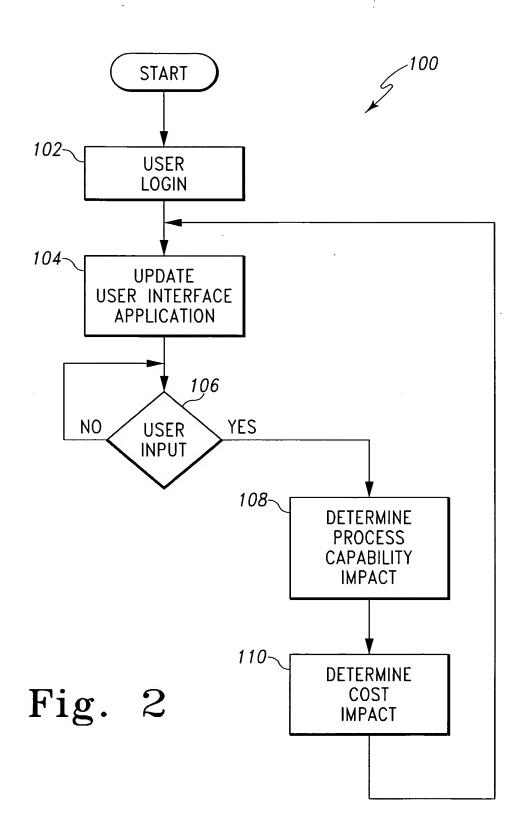


Fig. 1



APPARATUS, SYSTEM, METHOD, AND PROGRAM FOR FACILITATING THE DESIGN OF ELECTRONIC ASSEMBLIES Stanley Loren Bentley et al. 6890-74182

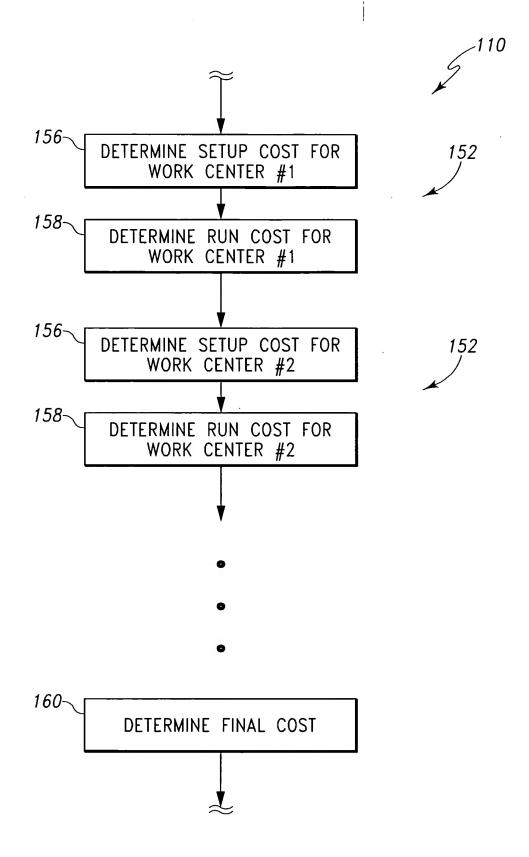


Fig. 3

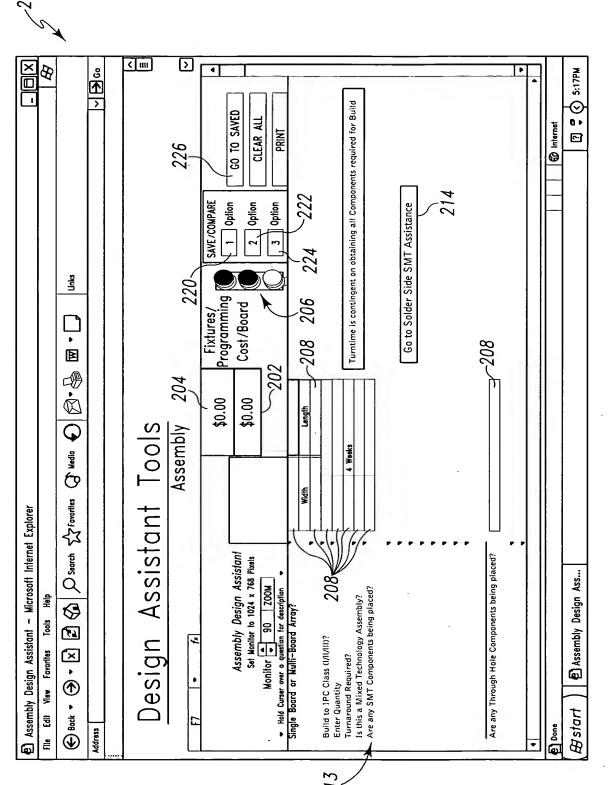


Fig. 4

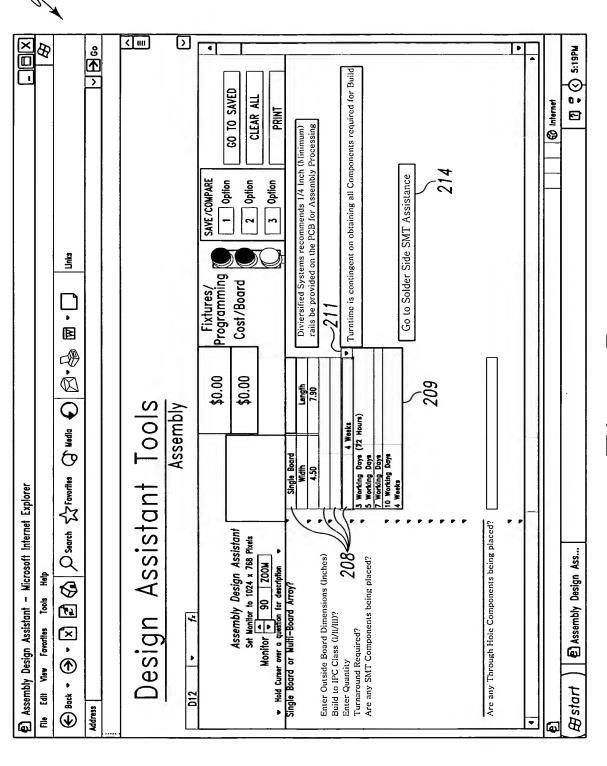


Fig. 5

< nn Ø % **1** B . O 5:20PM III Components required for Build GO TO SAVED CLEAR ALL 60 Internet <u>~</u> Par sembly Processing Option High Performance Electronic Products (i.e.: Flight Control, Life Support, etc.) Lance SAVE / COMPARE 1 Option 2 Option Recommend 1/4 Inch (Minimum) IPC-A-610: Each Class requires specific criteria be met in regards to Solder Connections, the higher the Class the Higher the Manufacturing Difficulty. Class 2: Dedicated Service Electronic Products (i.e.: Cell Phone, Controllers, etc.) 206 Class 1: General Electronic Products (i.e.: Calculators, Toys, VCR, etc.) Links Fixtures/ Programming Cost/Board lacksquare\$0.00 \$0.00 Length Assistant Tools Assembly Nedio Single Board S Favorites 🔁 Assembly Design Assistant – Microsoft Internet Explorer Search Assembly Design Assistant Are any Through Hole Components being placed? Set Monitor to 1024 x 768 Pixels

Monitor 9 90 Z00M

We Hald Curser over a question for description
Single Board or Multi-Board Array? Assembly Design Ass... Enter Outside Board Dimensions (Inches) Build to IPC Class (I/II/II)? Are any SMT Components being placed? Help Is this a Mixed Technology Assembly? 8 Tools Design 67 Edit View Favorites Œ Turnaround Required? **①** Enter Quantity **B**start ₩ Back 012 Address Ē ها

Fig. 6

〈 !!!! O 3 **1** \mathcal{B} . S:22PM Turntime is contingent on obtaining all Components required for Build > GO TO SAVED CLEAR ALL 60 Internet PRINT rails be provided on the PCB for Assembly Processing Go to Solder Side SMT Assistance SAVE / COMPARE Option Option 1 Option Recommends 1/4 Inch (Minimum) Reflow Component Side Components, Glue Dot Solder Side Components 206 Links Fixtures/ Programming Cost/Board **₹**208 ≥208 B \$656.30 \$0.00 7.90 Design Assistant Tools Assembly Yes - Both Sides Component Side | Sold 4 Weeks Media ල Single Board Width 3 S Favorites 🔁 Assembly Design Assistant – Microsoft Internet Explorer Of these, are any of these smaller than 0603? • Of these, Enter the # that contain 3 leads or more of these, Enter the # that are BGA's Of these, Enter the # that are Hand Placed Are any Through Hole Components being placed? 208 Total # of Unique SMT Components 208

Of these, Enter the # of Unique BGA's

Of these, are any of these smaller than 06037

Of these, Enter the # that contain 3 leads or mo Search Assembly Design Assistant Set Monitor to 1024 x 768 Pixels Assembly Design Ass... Enter Outside Board Dimensions (Inches) Build to IPC Class (I/II/III)? Monitor 90 | 200M Are any SMT Components being placed? Is this a Mixed Technology Assembly? 8 Tools Single Board or Multi-Board Array? **(1)** xpected SMT Process \boxtimes Edit View Favorites Turnaround Required? **①** Enter Quantity **B**start , Bet <u>F</u> Done Address ê

Fig. 7

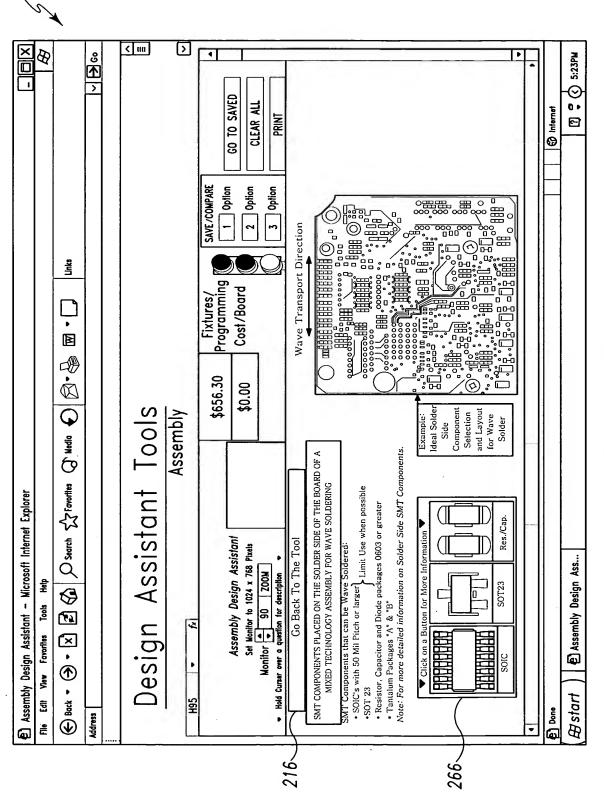


Fig. 8

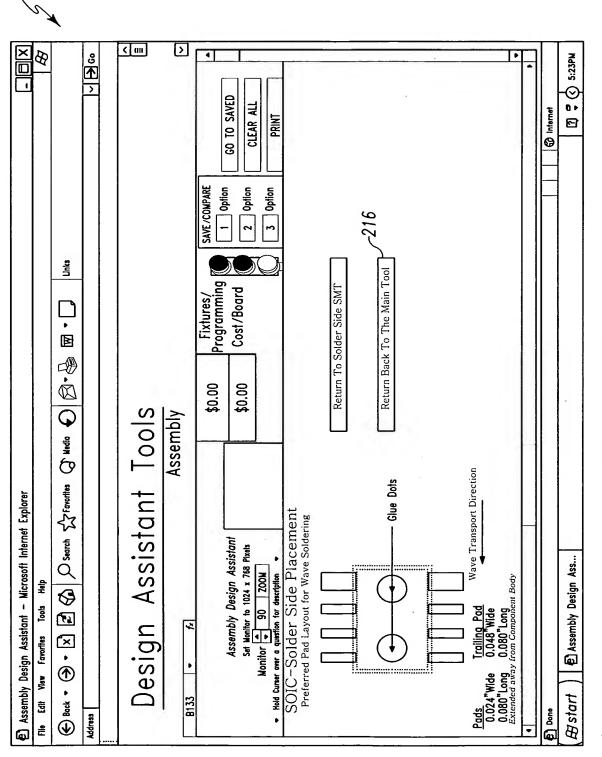


Fig. 9

〈 IIII ☑ \mathcal{B} % ♠ > M 🕏 🔇 5:36PM \$2,159.05 | Cost/Board | \$319.75 | 232 Option 3 Clear 23 11
20 20 Ration Side Components, Rellow Component Side Components
Vea-Both Sides
Contact Sides
Contact Sides
Contact Sides Solder Side Solder Side Length 3 (2) Internet 7 Working Days Yes-Both Sides Component Side Component Side Programming Fixtures/ Single Board 8 2 3 -228 | Cost/Board | \$130.80 | 232 Option 2 Clear : \$1,760.46 Solder Side Solder Side 20
Reflow Solder Side Components, Reflow
Component Side Components Links Yes-Both Sides 300 4 Weeks Yes-Both S Fixtures/ Programming Component Side 300 Component Side Single Board Width 드용 \blacksquare 232 Option 1 Clear \$1,576.56 20 20 Reflow Solder Side Components, Reflow Component Side Components Vace Both Sides \$119.24 Solder Side Assistant Tools Length Assembly No Yes-Both Sides 8 Fixtures/ Programming Cost/Board Component Side Component Side Single Board \$\text{\favorites} 를 장망 없 Assembly Design Assistant - Microsoft Internet Explorer Total \$\pi\$ of Unique SMT Components
Of these, Enter the \$\pi\$ of Unique BGA's
Total \$\pi\$ of SMT Components being replaced
Of these, are any of these smaller than 06037
of these, Enter the \$\pi\$ that contain \$\frac{3}{2}\$ leads or more
Of these, Enter the \$\pi\$ that are BGA's
Of these, Enter the \$\pi\$ that are Hand Placed Search 230 Assembly Design Assistant Total # of Unique Through Hole Components

Total # of Through Hole Components being placed

Total # of Leads for the Components being placed? Single Board or Multi-Board Array / # per Array? Clear All Are any Through Hole Components being placed? D Assembly Design Ass... Turnaround Required? Is this a Mixed Technology Assembly? Are any SMT Components being placed? \$ Edit View Favorites Tools Design PRINT ţ Board/Array Dimensions? Build to IPC Class? Ľ **Expected SMT Process ① Enter Quantity** RETURN **B**start ⊕ Bek Æ e Done Address ê ها

Fig. 10

\$ 200